

R E M A R K S

Reconsideration of this application, as amended, is respectfully requested.

THE CLAIMS

Claim 1 has been amended to incorporate the subject matter of now canceled claim 4, and the claims have also been amended to make some minor grammatical improvements and to correct some minor antecedent basis problems so as to put them in better form for issuance in a U.S. patent.

No new matter has been added, and it is respectfully requested that the amendments to the claims be approved and entered.

THE PRIOR ART REJECTION

Claims 1, 2 and 5 were rejected under 35 USC 102 as being anticipated by USP 5,715,377 ("Fukushima et al"); claim 3 was rejected under 35 USC 103 as being obvious in view of the combination of Fukushima, US 2004/0032524 ("Silverbrook"), and USP 4,969,045 ("Haruki et al"); and claim 4 was rejected under 35 USC 103 as being obvious in view of the combination of Fukushima and USP 5,848,181 ("Ogata"). These rejections, however, are respectfully traversed with respect to the claims as amended hereinabove.

According to the present invention as recited in amended independent claim 1, an image processing apparatus for adjusting a gradation range of an input image is provided which comprises: photographing condition estimation means for estimating a photographing condition of the input image; selection means for selecting an arrangement of a weight coefficient based on the photographing condition; characteristic amount calculation means for calculating a characteristic amount with respect to the input image; histogram generation means for generating a weighting histogram related to the characteristic amount based on the arrangement of the weight coefficient; gradation conversion curve calculation means for calculating a gradation conversion curve based on the histogram; and conversion means for performing gradation conversion using the gradation conversion curve so as to perform gradation correction on the input image to adjust the gradation range to a predetermined gradation range.

That is, according to the present invention as recited in amended independent claim 1, an arrangement of a weight coefficient is selected based on a photographing condition and a characteristic amount with respect to the input image is calculated, and then a weighting histogram related to the characteristic amount is generated based on the selected arrangement of the weight coefficient. (See attached Reference Figure 1.)

By contrast, in Ogata (which was cited against the subject matter of claim 4 now recited in amended independent claim 1), a histogram H related to a luminance level is calculated, then a smoothing histogram H' is generated, and then a coefficient C[L] is generated. (See attached Reference Figure 2 and column 6, line 65 to column 7, line 18 of Ogata.)

It is respectfully submitted, however, that Ogata does not disclose, teach or suggest selecting an arrangement of a weight coefficient based on a photographing condition and then generating a weighting histogram related to the characteristic amount based on the selected arrangement of the weight coefficient, as according to the present invention as recited in amended independent claim 1. In this connection, it is noted that the histogram H and the histogram H' in Ogata are not generated based on an arrangement of a weight coefficient.

It is respectfully pointed out, moreover, that the "weight coefficient" and "characteristic amount" as according to the claimed present invention are different from each other, whereas on page 9 of the Office Action the Examiner appears to have associated "Yd" of Ogata with both of these features.

In any event, it is respectfully submitted that Ogata does not disclose, teach or suggest selecting an arrangement of a weight coefficient based on a photographing condition and then generating a weighting histogram related to the characteristic

amount based on the selected arrangement of the weight coefficient, as according to the present invention as recited in amended independent claim 1.

Accordingly, it is respectfully submitted that even if the teachings of Ogata were combinable with the teachings of Fukushima in the manner suggested by the Examiner, the structure of the present invention as recited in amended independent claim 1 would still not be achieved or rendered obvious.

It is respectfully submitted, therefore, that amended independent claim 1 clearly patentably distinguishes over the cited references, taken singly or in any combination consistent with the respective fair teachings thereof, under 35 USC 103.

With respect to claim 2, moreover, it is respectfully pointed out that the photographing condition estimation means of the present invention estimates the photographing condition based on at least one of focal information, photometric information, zoom position information, multi-spot photometric information, line-of-sight input information (i.e., eye sensing information), and strobe flash information.

With respect to claim 3, it is respectfully pointed out that the photographing condition estimation means estimates at least one of three types of focal positions and at least one of three types of object distributions, and integrally estimates the photographing condition by combining the at least one estimated

focal position and the at least one estimated object distribution.

With respect to claim 5, it is respectfully pointed out that the gradation correction comprises reducing the gradation range.

And it is respectfully submitted that claims 2, 3 and 5 also patentably distinguish over the cited references based on their dependence from patentably distinguishing amended independent claim 1.

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In view of the foregoing, entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned for prompt action.

Respectfully submitted,

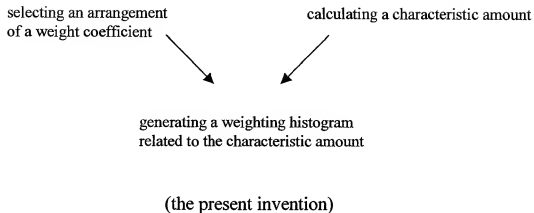
/Douglas Holtz/

Douglas Holtz
Reg. No. 33,902

Frishauf, Holtz, Goodman & Chick, P.C.
220 Fifth Avenue - 16th Floor
New York, New York 10001-7708
Tel. No. (212) 319-4900

DH:jd
encs.

REFERENCE FIGURE 1



REFERENCE FIGURE 2

